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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

*-- The MAILING DATE of this communication appears on th  cover she  t with th  correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _28 August 2002_ .

2a)☒ This action is **FINAL**.     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _17-26,28,29,37,38 and 44-74_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 August 2002_ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)       4)☒ Interview Summary (PTO-413) Paper No(s). _7_ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _5_ .   6)☒ Other: _see attached office action_ .

## DETAILED ACTION

### *Response to Arguments*

1.      Applicant's arguments filed 8/28/02 have been fully considered but they are not

persuasive. The explanation is given below.

2.      Examiner notes that amendment has substantially changed the scope of the claims.

3.      Examiner acknowledges that all claims rejected for statutory double patenting have been

cancelled without predjudice.  Therefore, said rejection has been withdrawn.

4.      Examiner maintains his rejection of nonstatutory double patenting for all uncancelled

claims and for any added claims that are functionally equivalent.  Rather than adding new

limitations or aspects to the invention, applicant has attempted to gain breadth of coverage on an

issued parent, despite the fact that the special combination of limitations is what made said

invention patentable.  Such rejection will be withdrawn upon receipt of the terminal disclaimer,

which will overcome the objection.

5.      In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e., "the data

structure or table") are not recited in the rejected claim(s).  Although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims.  See *In*

*re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).  Applicant argues against

existence of table when traversing the independent claims such as claim 17.  Claim 17, even

amended, does not disclose the data structure or the control mechanism thereof.  Claims 24, 28

and 37 do have this feature, as does dependent claim 22.

6.     In response, examiner replies that the purpose of Bryant is to establish a border node that links two disparate networks, the purpose being to interconnect the two networks (col. 4, lines 39-42). As a result, the unique ID of each node on a network is shared with other nodes for the purpose of communication (Fig. 2) by using the border nodes to route communications. The border node also maintains routing information between the two networks (col. 3, lines 39-41 and Fig. 4, #108). And the routing information may be searched when necessary (Fig. 3).

7.     In other words, each network can be thought of as a virtual LAN, and the nodes within network 1 can talk to each other without the use of a border node, using unique IDs (L2). The border nodes allow routing between a node in network 1 and another node in network 2 – even two nodes with the same unique ID (col. 2, lines 47-48) – by acting as either a network node or an endpoint node as needed (col. 4, lines 62-66). A "bind" request can then make its way from one network to another (Fig. 4) using the border node as a router (L3).

8.     It has been shown that the L2 and L3 addresses are related, and that such information is stored. Therefore, the only remaining issue is whether such information is stored specifically in a data structure such as a table. Examiner replies that such information cannot be stored in any other form than a data structure without significant problems in storage or searching. In fact, the term data structure covers so many types of data storage that the examiner is hard pressed to think of a form that does not count as such.

9.     In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the switch-router separation") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In*

*re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). They have been added to

dependent claims. Examiner points out that the claim 17 limitation of "without use of a routing

function" is insufficient.

10.     Examiner further points out that such a limitation is untrue. Applicant claims a "switch"

that receives a packet from a source port, reads its L3 address (IP address), and checks its

internal data structure (lookup table) to see if it knows its L2 address (i.e. Ethernet or LAN ID).

If the destination is local, it sends the packet out a destination port. If the destination is not local

(that is, the L2 address isn't known), then the packet is sent to a separate router. The examiner,

upon using the remarks and the claims to describe the invention, has just drawn a standard bridge

router that acts as a border node. A bridge router simply routes packets from source ports to

destination ports using a lookup table that tells it to send the packet to a local node or to another

router. Such routers were well known in the art at the time the invention was made.

11.     Bryant teaches mechanisms for connecting new border nodes together (Fig. 2) and that, if

the network routing information is not available (Fig. 4, #122), then the "bind request" is

transmitted to a different network node (Fig. 4, #128 and #126). As such, the border node acts

exactly like the switch drawn in the present invention, including the limitation of sending to a

separate "router" if the destination location is not available. Applicant is invited to explain how

his invention sends information "without a routing protocol." Examiner contends that applicant

does use routing protocol, and – more importantly – that applicant uses the same function as

Bryant.

12.     Examiner also notes that Yu teaches many of the same limitations above, including a data

structure called the client table (Fig. 7d, #766) and that the router uses a lookup table, as does all

routers known in the art.  The same arguments regarding "without a routing function" still

applies.

### Double Patenting

13.    The nonstatutory double patenting rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees.  See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA

1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to
overcome an actual or provisional rejection based on a nonstatutory double patenting ground
provided the conflicting application or patent is shown to be commonly owned with this
application.  See 37 CFR 1.130(b).
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
disclaimer.  A terminal disclaimer signed by the assignee must fully comply with 37
CFR 3.73(b).

14.    Claims 17-26, 28, 29, 37, 38, and 44-74 are rejected under the judicially created doctrine

of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No.

6,058,429.  Although the conflicting claims are not identical, they are not patentably distinct

from each other because they are a significant part of each claim.

15.    For claim 17, Ames teaches a switch (col. 12, line 40) comprising:

a.      A plurality of ports (col. 12, lines 44 and 50); and

b.      A mechanism to determine, using layer three (L3) information contained in a

packet received by a source port of the plurality of ports (Fig. 3a, #304 and #306), which

one of the plurality of ports is coupled to a destination device and to transfer information contained in the packet to the destination device without use of a routing function (col. 12, lines 56-61).

16.     As to claim 18, the plurality of ports includes:

a.  A first plurality of ports coupled to a plurality of devices, including the destination device, associated with at least two networks (col. 12, lines 44-49); and

b.  A second plurality of ports coupled to a router (col. 12, lines 50-55).

17.     As to claim 19, the networks are virtual local area networks (col. 12, line 41).

18.     As to claim 20, the mechanism analyzes data transmitted between the router and the destination device (col. 12, lines 56 and 57).

19.     As to claim 21, the data is packetized in accordance with an Address Resolution Protocol (col. 13, lines 28-33).

20.     As to claim 22, the mechanism generates a data structure including layer two (L2) addresses and corresponding layer three (L3) addresses associated with the destination device prior to transferring information to the destination device (col. 13, lines 40-45).

21.     As to claim 23, the destination device includes a server associated with one of the at least two networks (col. 14, lines 7-9).

22.     As to claim 24, a switch comprising:

a.  A plurality of ports adapted for coupling together a plurality of networks and a router (col. 12, lines 44-54); and

b.  A mechanism to

      i.     Analyze information transferred from a source device of a first network to

a destination device of a second network (col. 13, lines 55-56),

      ii.     Store information identifying a port coupled to the second network, a layer

two (L2) address of the destination device and a layer three (L3) address of the

destination device corresponding to the L2 address (col. 13, lines 60-65), and

      iii.     Using the information to forward data between the plurality of networks

(col. 13, line 66).

23.    As to claim 25, the information is obtained from packets configured in accordance with

an Address Resolution Protocol (col. 13, lines 59-60).

24.    As to claim 26, the mechanism uses the information by:

a.  Determining both the L2 address of the destination device and the port coupled to the

second network based on the L3 address of the destination device supplied by the source

device (col. 13, lines 60-65), and

b.  Setting a destination of packets of the data to the L2 address of the destination device

(col. 14, lines 23-26).

25.    As to claim 28, a network comprising:

a.  A destination device of a first network (col. 12, lines 44 and 50);

b.  A source device of a second network (col. 12, lines 44 and 50);

c.  A router (col. 12, lines 50-55); and

d.  A switch having a plurality of ports supporting communication to the destination

device, the source device and the router, the switch including software to determine

which one of the plurality of ports is coupled to the destination device and to transfer

information from the source device to the destination device without use of a routing

protocol (col. 12, lines 56-61).

26.     As to claim 29, the first network is separate and distinct from the second network (col.

12, line 41) and the switch is remotely located from the router (Fig. 2, #200 and #126).

27.     Claim 37 is drawn to a switch implementation of claims 24-26. The prior art teaches that

two embodiments of an invention are functionally equivalent. Therefore, if claims 24-26 are

rejected, then claim 37 is also rejected for the reasons above.

28.     As to claim 38, the first and second remarks are virtual local area networks (col. 12, line

41).

29.     As for claim 44, Ames teaches that the source port is coupled to a first network (Fig. 2,

#202).

30.     As for claim 45, Ames teaches that the destination port is coupled to a second network

(Fig. 2, #206).

31.     Claims 46 and 47 are drawn to the same limitations as claims 19 and 29. Therefore, if

claims 19 and 29 are rejected, then claims 46 and 47 are also rejected for the reasons above.

32.     For claim 48, Ames teaches that the usage of a routing function is use of a rating protocol

(Fig. 2, #126).

33.     Claim 49 teaches limitations similar to those drawn in claim 48. If claim 48 is rejected,

then claim 49 is also rejected for the reasons above.

34.     As for claim 50, Ames teaches that the data structure(s) are table(s) (col. 4, lines 58-62).

35.     As for claim 51, Ames teaches sending the data packet to the destination device (Fig. 4c,

#426).

36.     Claim 52 is a switch embodiment that draws limitations similar to those in claims 17 and

22. If claims 17 and 22 are rejected, then claim 52 is also rejected for the reasons above.

37.     Claim 53 is a switch embodiment that draws limitations similar to those in claims 18, 19

and 29. If claims 18, 19 and 29 are rejected, then claim 53 is also rejected for the reasons above.

38.     Claim 54 is a switch embodiment that draws limitations similar to those in claim 18. If

claim 18 is rejected, then claim 54 is also rejected for the reasons above.

39.     Claim 55 is a switch embodiment that draws limitations similar to those in claim 20. If

claim 20 is rejected, then claim 55 is also rejected for the reasons above.

40.     Claim 56 is a switch embodiment that draws limitations similar to those in claim 21. If

claim 21 is rejected, then claim 56 is also rejected for the reasons above.

41.     Claim 57 is a switch embodiment that draws limitations similar to those in claim 29. If

claim 29 is rejected, then claim 57 is also rejected for the reasons above.

42.     Claim 58 is a switch embodiment that draws limitations similar to those in claim 50. If

claim 50 is rejected, then claim 58 is also rejected for the reasons above.

43.     Claim 59 is drawn to a switch comprising many of the limitations in claims 17 and 20,

but also comprising a mechanism that determines, using the L3 information in an input packet,

how a destination device is coupled to the input (Fig. 3).

44.     Claim 60 is a switch embodiment that draws limitations similar to those in claims 18 and

19. If claims 18 and 19 are rejected, then claim 60 is also rejected for the reasons above.

45.     Claim 61 is a switch embodiment that draws limitations similar to those in claim 20. If

claim 20 is rejected, then claim 61 is also rejected for the reasons above.

46.     Claim 62 is a switch embodiment that draws limitations similar to those in claim 21. If claim 21 is rejected, then claim 62 is also rejected for the reasons above.

47.     Claim 63 is a switch embodiment that draws limitations similar to those in claim 29. If claim 29 is rejected, then claim 63 is also rejected for the reasons above.

48.     Claim 64 is a switch embodiment with similar limitations to those drawn in claim 59. If claim 59 is rejected, then claim 64 is also rejected for the reasons above.

49.     Claim 65 is a switch embodiment that draws limitations similar to those in claim 21. If claim 21 is rejected, then claim 65 is also rejected for the reasons above.

50.     Claim 66 is a switch embodiment that draws limitations similar to those in claim 50. If claim 50 is rejected, then claim 66 is also rejected for the reasons above.

51.     Claim 67 is drawn to a switch comprising many of the limitations in claim 17, with the added limitation that the switch sends the packet to a router if the L3 address is not in the data structure (Fig. 5, #506).

52.     Claim 68 is a switch embodiment that draws limitations similar to those in claims 22 and 50. If claims 22 and 50 are rejected, then claim 68 is also rejected for the reasons above.

53.     Claim 69 is a switch embodiment that draws limitations similar to those in claim 29. If claim 29 is rejected, then claim 69 is also rejected for the reasons above.

54.     Claim 70 is a switch embodiment that draws limitations similar to those in claim 19. If claim 19 is rejected, then claim 70 is also rejected for the reasons above.

55.     Claims 71-74 are method embodiments that draw limitations similar to those in claims 67-70. The prior art teaches that a system implementation is functionally equivalent to the

underlying method. If claims 67-70 are rejected, then claims 71 - 74 are also rejected for the

reasons above.

## *Claim Rejections - 35 USC § 112*

56.    The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

57.    Claims 48, 49 are rejected under 35 U.S.C. 112, first paragraph, as containing subject

matter which was not described in the specification in such a way as to enable one skilled in the

art to which it pertains, or with which it is most nearly connected, to make and/or use the

invention. Claim 48 is drawn to the fact that the usage of a routing function is a rating function.

But claim 48 is dependent on claim 17, which states "without use of a routing function." Indeed,

one of the applicant's major points in the remarks is that the invention does not use routing

functions. This contradiction must be fixed to explain how to use a routing function in an

invention that does not use routing functions. Claim 49 has a similar problem.

58.    Claims 48, 49 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure

which is not enabling. The term "rating function" critical or essential to the practice of the

invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*,

527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicant needs to define rating function and

explain how it is used during the routing function of the invention, as the term can be found

nowhere in the specification. Claim 49 suffers from a similar deficiency.

59.    Claims 17, 24, 28, and all functionally equivalent claims are rejected under 35

U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The procedure of

"routing without a routing function" is critical or essential to the practice of the invention, but

not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229,

188 USPQ 356 (CCPA 1976). Examiner has studied the specification and sees no indication of

how invention routes without the routing function, or how the method of the invention differs

from a routing method. Further explanation is requested.

### *Claim Rejections - 35 USC § 102*

60.    The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

61.    Claims 17, 18, 20-26, 28, 29 37, 44, 45, 48, 49, 51, 52, 55-57, 59, 61-65, 67 are rejected

under 35 U.S.C. 102(b) as being anticipated by Bryant et al. (5,241,682).

62.    For claim 17, Bryant teaches a switch (see abstract) comprising:

      a.      A plurality of ports (see col. 3, lines 20-25); and

      b.      A mechanism to determine, using layer three (L3) information contained in a

packet received by a source port of the plurality of ports (Fig. 4), which one of the

plurality of ports is coupled to a destination device (see col. 3, lines 31-32) and to transfer

information contained in the packet to the destination device (see col. 3, lines 36-39)

without use of a routing function (see col. 3, lines 10-15).

63.    More information regarding this proof is drawn in the response to arguments above.

Multiple other pieces of prior art also anticipate this broad claim, which was common at the time

the invention was made.

64.     As to claim 18, Bryant teaches that the plurality of ports includes:

a.   A first plurality of ports coupled to a plurality of devices, including the destination

device, associated with at least two networks (col. 3, line 21); and

b.   A second plurality of ports coupled to a router (col. 3, line 20).

65.     As to claim 20, Bryant teaches that the mechanism analyzes data transmitted between the

router and the destination device (col. 3, lines 39-41). It is anticipated that a data analysis would

be required to complete the routing function and to maintain the routing information.

66.     As to claim 21, Bryant teaches that the data is packetized in accordance with an Address

Resolution Protocol (col. 3, line 33). The method of breaking up data into pieces and to giving

them destination locations that represent physical hardware locations is anticipated by the

invention.

67.     As to claim 22, Bryant teaches that the mechanism generates a data structure, including

layer two (L2) addresses and corresponding layer three (L3) addresses associated with the

destination device prior to transferring information to the destination device (col. 3, lines 60-66).

Because Bryant's table stores the identifier and the corresponding hardware location, the

corresponding layer standards are anticipated.

68.     As to claim 23, the destination device includes a server associated with one of the at least

two networks (col. 1, lines 55-57).

69.     As to claim 24, Bryant teaches a switch comprising:

a.   A plurality of ports adapted for coupling together a plurality of networks and a router

(see rejections to claims 17 and 18 above); and

b.   A mechanism to

        i.      Analyze information transferred from a source device of a first network to

a destination device of a second network (see rejection to claim 20 above),

        ii.     Store information identifying a port coupled to the second network, a layer

two (L2) address of the destination device and a layer three (L3) address of the

destination device corresponding to the L2 address (see col. 6, line 65), and

        iii.    Using the information to forward data between the plurality of networks

(col. 3, lines 26-41).

70.     As to claim 25, Bryant teaches that the information is obtained from packets configured

in accordance with an Address Resolution Protocol (col. 5, lines 13-19).

71.     As to claim 26, the switch of claim 24, wherein the mechanism uses the information by:

        a.  Determining both the L2 address of the destination device and the port coupled to the

second network based on the L3 address of the destination device supplied by the source

device (col. 5, lines 13-19), and

        b.  Setting a destination of packets of the data to the L2 address of the destination device

(col. 5, lines 10-60).

72.     Claim 28 is a network interpretation of claims 17 and 18. Because the method and the

system are logically equivalent, the claim is rejected for the reasons above.

73.     As to claim 29, Bryant teaches that the first network is separate and distinct from the

second network (col. 2, lines 66-67).

74.     As to claim 37, Bryant discloses the method (see Abstract) for the operation of the switch

defined by claims 24-26. Because the method and the system are logically equivalent, the claim

is rejected for the reasons above.

75.     As for claim 44, Bryant teaches that the source port (Fig. 1, #28) is coupled to a first

network (Fig. 1, #10).

76.     As for claim 45, Bryant teaches that one of the plurality of ports (Fig. 1, #24) is coupled

to a second network (Fig. 1, #12).

77.     For claim 48, Bryant teaches that the usage of a routing function is use of a rating

protocol (Fig. 4, #124).

78.     Claim 49 teaches limitations similar to those drawn in claim 48. If claim 48 is rejected,

then claim 49 is also rejected for the reasons above.

79.     As for claim 51, Bryant teaches sending the data packet to the destination device (col. 3,

lines 15-25).

80.     Claim 52 is a switch embodiment that draws limitations similar to those in claims 17 and

22. If claims 17 and 22 are rejected, then claim 52 is also rejected for the reasons above.

81.     Claim 55 is a switch embodiment that draws limitations similar to those in claim 20. If

claim 20 is rejected, then claim 55 is also rejected for the reasons above.

82.     Claim 56 is a switch embodiment that draws limitations similar to those in claim 21. If

claim 21 is rejected, then claim 56 is also rejected for the reasons above.

83.     Claim 57 is a switch embodiment that draws limitations similar to those in claim 29. If

claim 29 is rejected, then claim 57 is also rejected for the reasons above.

84.     Claim 59 is drawn to a switch comprising many of the limitations in claims 17 and 20,

but also comprising a mechanism that determines, using the L3 information in an input packet,

how a destination device is coupled to the input. Bryant teaches this limitation as well (Fig. 2).

85.    Claim 61 is a switch embodiment that draws limitations similar to those in claim 20. If

claim 20 is rejected, then claim 61 is also rejected for the reasons above.

86.    Claim 62 is a switch embodiment that draws limitations similar to those in claim 21. If

claim 21 is rejected, then claim 62 is also rejected for the reasons above.

87.    Claim 63 is a switch embodiment that draws limitations similar to those in claim 29. If

claim 29 is rejected, then claim 63 is also rejected for the reasons above.

88.    Claim 64 is a switch embodiment with similar limitations to those drawn in claim 59. If

claim 59 is rejected, then claim 64 is also rejected for the reasons above.

89.    Claim 65 is a switch embodiment that draws limitations similar to those in claim 21. If

claim 21 is rejected, then claim 65 is also rejected for the reasons above.

90.    Claim 67 is drawn to a switch comprising many of the limitations in claim 17, with the

added limitation that the switch sends the packet to a router if the L3 address is not in the data

structure. Bryant also teaches this limitation as well (Fig. 4, #122, 128, 126).

### *Claim Rejections - 35 USC § 103*

91.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

92.    Claims 17-26, 28, 29, 37, 38, 44-74 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bryant as applied to claims 17, 18, 20-26, 28, 29, 37, 44, 45, 48, 49, 51, 52,

55-57, 59, 61-65, 67 above, and further in view of Yu (5,636,371).

93.     For claims 17, 18, 20-26, 28, 29, 37, 44, 45, 48, 49, 51, 52, 55-57, 59, 61-65, 67, that

which is anticipated is obvious.

94.     For claim 19, Bryant does not fully disclose that the networks are virtual local area

networks. However, Bryant does disclose that his invention is developed for the purpose of

combining a series of networks (Bryant, Col. 2, lines 65-67). Yu discloses a set of virtual local

area networks (Yu, col. 3, lines 39-55) that can easily be connected by Bryant's invention. At

the time the invention was made, one of ordinary skill in the art would have used virtual LANs in

the Bryant invention to improve system resource allocation.

95.     As to claim 38, Yu teaches that the first and second remarks are virtual local area

networks, as disclosed above. Claim 38 is rejected for the reasons listed above. At the time that

the invention was made, one of ordinary skill in the art would have combined the two inventions

for the reasons listed above.

96.     Claims 46 and 47 are drawn to the same limitations as claims 19 and 29. Therefore, if

claims 19 and 29 are rejected, then claims 46 and 47 are also rejected for the reasons above.

97.     As for claim 50, Yu teaches that the data structure(s) are table(s) (Fig. 5). Bryant teaches

the use of data structures, as shown above, but does not expressly disclose the use of a table.

However, a table is a well-known data structure, and a look-up table would be the easiest way to

connect L3 addresses to L2 addresses. At the time the invention was made, one of ordinary skill

in the art would have used a table in Bryant's data structure because it is a cheap and fast

implementation.

98.     Claim 53 is a switch embodiment that draws limitations similar to those in claims 18, 19

and 29. If claims 18, 19 and 29 are rejected, then claim 53 is also rejected for the reasons above.

99.     Claim 54 is a switch embodiment that draws limitations similar to those in claim 18. If claim 18 is rejected, then claim 54 is also rejected for the reasons above.

100.    Claim 58 is a switch embodiment that draws limitations similar to those in claim 50. If claim 50 is rejected, then claim 58 is also rejected for the reasons above.

101.    Claim 60 is a switch embodiment that draws limitations similar to those in claims 18 and 19. If claims 18 and 19 are rejected, then claim 60 is also rejected for the reasons above.

102.    Claim 66 is a switch embodiment that draws limitations similar to those in claim 50. If claim 50 is rejected, then claim 66 is also rejected for the reasons above.

103.    Claim 68 is a switch embodiment that draws limitations similar to those in claims 22 and 50. If claims 22 and 50 are rejected, then claim 68 is also rejected for the reasons above.

104.    Claim 69 is a switch embodiment that draws limitations similar to those in claim 29. If claim 29 is rejected, then claim 69 is also rejected for the reasons above.

105.    Claim 70 is a switch embodiment that draws limitations similar to those in claim 19. If claim 19 is rejected, then claim 70 is also rejected for the reasons above.

106.    Claims 71-74 are method embodiments that draw limitations similar to those in claims 67-70. The prior art teaches that a system implementation is functionally equivalent to the underlying method. If claims 67-70 are rejected, then claims 71 - 74 are also rejected for the reasons above.

### Conclusion

107.    The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All are potential 102 and/or 103 artwork.

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

MHP
November 19, 2002

ROBERT B. HARRELL
PRIMARY EXAMINER